

AMENDMENTS TO THE CLAIMS

Please add claim 24 and amend claims 1, 11, and 20-23, as shown below. Support for such amendments and new claims are provided in the application as originally filed, thus no new matter has been added. All pending claims are reproduced below, including those that remain unchanged.

1. (Currently amended) A storage medium including software system applications for providing access to web services, comprising:

a container driver that accepts an invoke request for a web service from a client;

an interceptor that

receives initial message context for the invoke request for the web service from said container driver, the initial message context including a plurality of ~~components~~ parts each of which includes corresponding content, and

modifies the content of one or more of the ~~components~~ parts of the initial message context to produce modified message context for the web service, the modified message context including the same plurality of ~~components~~ parts as the initial message context but with the content of one or more ~~components~~ parts differing from the initial message context; and,

an invocation handler that receives the modified message context from said container driver, passes parameters from the modified message context to the target of the request, processes values returned from the target, and passes the values to the container driver, such that the container driver can formulate a response to the invoke request.

2. (Previously presented) The storage medium of claim 1 wherein the client utilizes JAX-RPC to invoke the web services.

3. (Previously presented) The storage medium of claim 1 wherein said container driver is adapted to perform any data binding and unbinding required to process the invoke request.

4. (Previously presented) The storage medium of claim 1, further comprising a protocol adapter that intercepts web service invoke requests and passes the web service invoke requests to said container driver.

5. (Previously presented) The storage medium of claim 4, wherein said protocol adapter converts the format of an invoke request and create a message context containing the invoke request.
6. (Previously presented) The storage medium of claim 1, further comprising a plugin component to be used by said container driver to perform any data binding and unbinding.
7. (Previously presented) The storage medium of claim 1, further comprising an invocation context for storing arbitrary context data useful in processing the web request, said invocation context available to at least one of said interceptor and said invocation handler.
8. (Previously presented) The storage medium of claim 1, wherein said invocation handler manages security policies, transaction management, and target object life cycle for the request.
9. (Previously presented) The storage medium of claim 1, further comprising a web service container for hosting said container driver, said interceptor, and said invocation handler.
10. (Previously presented) The storage medium of claim 1, further comprising a target object to which said invocation handler can delegate processing the invoke request.
11. (Currently amended) A method for use in providing access to web services, comprising:
receiving an initial message context for an invoke request for a web service, the initial message context including a plurality of ~~components-parts~~ each of which includes corresponding content; and
modifying the content of one or more of the ~~components-parts~~ of the initial message context to produce modified message context for the web service, the modified message context including the same plurality of ~~components-parts~~ as the initial message context but with the content of one or more ~~components-parts~~ differing from the initial message context.

12. (Previously presented) The method of claim 11 wherein a client utilizes JAX-RPC to invoke the web service.
13. (Original) The method of claim 11 wherein a container driver is used to perform any data binding and unbinding required to process the invoke request.
14. (Previously presented) The method of claim 11, further comprising intercepting an invoke request from a web services client using a protocol adapter and generating the initial message context for the invoke request.
15. (Previously presented) The method of claim 11, wherein the receiving and modifying steps are preformed using an interceptor.
16. (Previously presented) The method of claim 11, further comprising providing the modified message context to an invocation handler that passes parameters from the modified message context to a target of the request, processes values returned from the target, and passes the values to a container driver, such that the container driver can formulate a response to the invoke request.
17. (Original) The method of claim 11, further comprising storing arbitrary context data for use in processing the invoke request.
18. (Original) The method of claim 11, further comprising managing life cycle, transaction, and security information for the processing of the invoke request.
19. (Original) The method of claim 11, further comprising delegating the processing of the invoke request to a target object.
20. (Currently amended) A computer readable medium, including instructions stored thereon which when executed by the computer cause the computer to perform the steps of:
accepting, at a container driver, an invoke request for a web service from a client;

receiving, at an interceptor, initial message context for the invoke request for the web service from the container driver, the initial message context including a plurality of ~~components~~ parts each of which includes corresponding content;

modifying, at the interceptor, the content of one or more of the ~~components~~ parts of the initial message context to produce modified message context for the web service, the modified message context including the same plurality of ~~components~~ parts as the initial message context but with the content of one or more ~~components~~ parts differing from the initial message context;

receiving, at an invocation handler, the modified message context from the container driver; passing, from the invocation handler to a target of the request, parameters from the modified message context;

processing, at the invocation handler, values returned from the target;

passing the values from the invocation handler to the container driver; and

formulating, at the container driver, a response to the invoke request.

21. (Currently amended) The storage medium of claim 1, wherein the plurality of parts for the initial message context and the plurality of parts for the modified message context each include a request message ~~component~~, and a response message ~~component~~, ~~a transport information component~~ ~~and invocation context component~~, with a difference between the initial message context and the modified message context being the content of one or more of these ~~components~~ parts.

22. (Currently amended) The storage medium of claim ~~21~~ 7, wherein the content of the invocation context ~~component~~ includes ~~at one of the following, which differs between the initial message context and the modified message context:~~

a conversation ID;

a message sequence number; and

a security token.

23. (Currently amended) The storage medium of claim ~~21~~ 7, wherein the interceptor reads and writes information on the invocation context ~~component~~.

24. (New) The storage medium of claim 1, wherein the initial message context and the modified message context each include transport information, wherein the transport information comprises information specific to the transport over which the request came, and over which the response is sent.